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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/890,296      | 07/27/2001  | Kimihiko Okaue       |                     | 9306             |

7590 06/05/2003  
Pearne Gordon McCoy & Granger  
1200 Leader Building  
Cleveland, OH 44114

3  
EXAMINER

BARRY, CHESTER T

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1724

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/890,296

Examiner

Chester T. Barry

Applicant(s)

OKAUE, KIMIHIKO

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2-5 and 7-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-5 and 7-10 is/are allowed.
- 6) ☒ Claim(s) 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☒ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☒ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Claim 2 is rejected under 35 USC § 112(2<sup>nd</sup>) for failing to particularly point out and distinctly claim the subject matter for which patent protection is sought. It is unclear whether the adsorbent (i.e., "an adsorbent," at line 10) having hydroxyl groups to which the metal ions are attached is the same adsorbent as the adsorbent containing at least  $\text{MgSO}_4$  and  $\text{MgOH}$ . The doctrine of claim differentiation suggests that the former is not the same as the later (compare to claim 3's recitation of "said adsorbent" at line 12; see also claim 9).

Several instances of verb/noun number disagreement were observed. See, for example, claim 2 line 9 "is" where "are" should be. See also, "wherein the metal ions is [sic, "are"] heavy metal ions." Please review the claims for correction of such spelling errors not substantially related to patentability.

06226017 appears to be the closest prior art. It – according to its English language abstract – requires an adsorbent "consisting essentially of any one component" selected from a list that does not include a mixture of  $\text{MgSO}_4$  and  $\text{MgOH}$ . Accordingly, even if non-anticipating prior art were found which suggested the desirability of a mixture of  $\text{MgSO}_4$  and  $\text{MgOH}$  over a single magnesium adsorbent, as taught by 06226017, such substitution would "destroy" the teaching so the abstract of the 06226017 document. If applicant is aware of disclosure in the 06226017 reference (applicant and the inventor of the information disclosed in the 06226017 document appear to be the same individual) that is inconsistent with the examiner's interpretation of the full scope of the

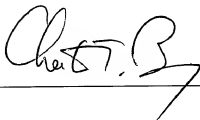
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06226017 teachings, applicant is requested – but not required by this communication – to disclose more fully the more material portions of the 06226017 document.

Yano recognizes that  $\text{MgSO}_4$  or  $\text{MgOH}$  can be used to remove selenium from waste water, but not in a dual-membrane filter as claimed. But for 06226017's apparent requirement that only one adsorbent compound be used in the filter, Yano's teaching suggests using a combination of  $\text{MgSO}_4$  and  $\text{MgOH}$  in the 06226017 filter.

USP 4752397 is cited of interest.

Respectfully,

A handwritten signature in black ink, appearing to read "Chester T. Barry", is written over a horizontal line. The signature is stylized with a large, looped "C" and a long, sweeping tail.

**CHESTER T. BARRY**  
**PRIMARY EXAMINER**

703-306-5921